

ABSTRACT OF THE DISCLOSURE

An optical multiplex communication system includes a multiplexer and a demultiplexer. In the multiplexer, one of two modulated optical pulse train signals is attenuated by an optical attenuator so that amplitudes of the two signals differ from each other. Then, the two signals are time-division multiplexed to produce a multiplexed optical pulse train signal. In the demultiplexer, a VD detector indirectly derives the amplitude of the extracted optical pulse train signal and outputs it to a comparator. A VR detector derives the mean amplitude of the multiplexed optical pulse train signal and outputs it to the comparator. Based on the inputted amplitudes, the comparator identifies the extracted optical pulse train signal. A controller and a mixer control the signal extraction timing such that the extracted optical pulse train signal as identified by the comparator agrees with selection designated by an externally inputted select signal.